

### **Alabama Geographic Information Advisory Committee**

### **Phillip Henderson**

Chairman

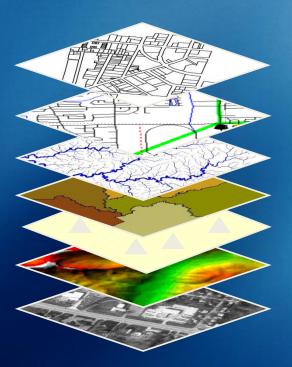
February 21, 2013

### Agenda

- Welcome
- Introduction of Members and Guests
- Subcommittees Updates
- GIS Executive Council's Statewide GIS Goals
- GIS Program Office Update
- Virtual Alabama Update
- Next Meeting
- Adjourn

### Imagery/LiDAR Subcommittee

 The Aerial Imagery Business Plan has been completed (Posted on the website gis.alabama.gov)



**Land Ownership** 

**Transportation** 

**Surface Waters** 

**Boundaries** 

**Geodetic Control** 

**Elevation** 

**Aerial Imagery** 



### Imagery/LiDAR Subcommittee

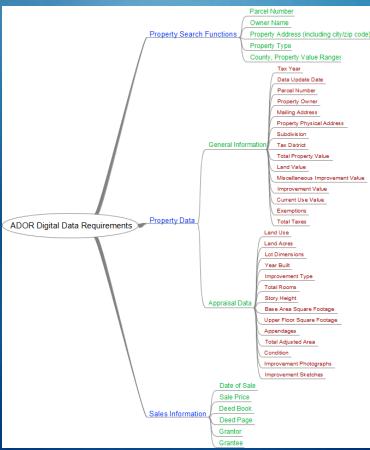
- Objectives from Business Plan
- 1. Distribute USGS photography and LiDAR specifications for review to stakeholders
- 2. Modify existing ADOR Mapping Guidelines and Specifications to reflect the updated specifications
- 3. Outreach to Federal, State, and Local Governments to communicate the Business Plan ... determine possible funding sources for future partnerships
- 4. Establish policies and strategies which emphasize cooperation and coordination at all levels of government and other stakeholders in order to maximize the cost efficiency
- 5. Develop acquisition plans for Imagery and LIDAR for the 2013-2014 flying season
- 6. Identify and develop funding sources for project implementation and long-term maintenance

### Imagery/LiDAR Subcommittee



### Data Subcommittee

- Concentrating activities on the goals of the GIS Executive Council
  - Working to develop standards from authoritative sources
    - Reviewing standards from Alabama Department of Revenue for Parcel Data Inventory



### Data Subcommittee

- Addressing standards webinar with the nationally recognized NENA and FGDC expert Martha Wells
  - This is vital for geocoding and road centerlines

### Developing Tools for Good Addressing

Presented to
State of Alabama Geospatial Information
Council

by Martha McCart Wells, GISP October 22, 2012



### Data Subcommittee

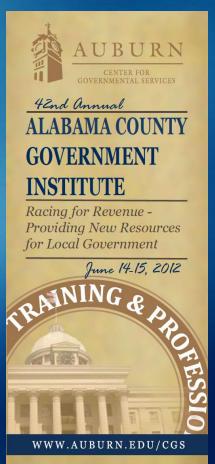
Metadata questionnaire from the subcommittee is currently under review

#### Metadata Questionnaire

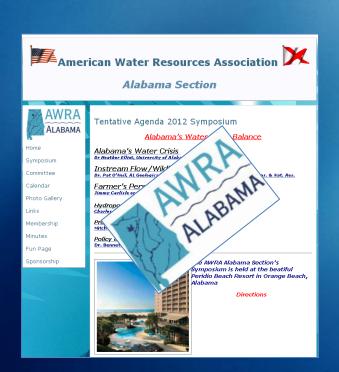
- 1. Does your agency produce geospatial data that are shared with the public?
  - 2. Is metadata written to accompany this data?
- 3. Does your agency produce geospatial data that are shared with other state agencies, but not meant for public release?
  - 4. Is metadata written to accompany this data?
- 5. For metadata written, is FGDC format used, or another format?(note, this refers to the format/layout of the metadata itself, not theme-words and not file type such as .xml/.txt)
  - 6. Are you yourself proficient in writing metadata?
  - 7. For geospatial data your agency shares with the public, what five metadata fields are most important to include? (ex: Time\_Period\_of\_Content, Abstract, Publication\_Date, Keywords, Use\_Constraints, Point\_of\_Contact, Process\_Description, Spatial\_Reference\_Information, Entity\_and\_Attribute\_Information, Distribution\_Liability, etc.)
  - 8. For geospatial data your agency shares with other agencies (but not public), what five metadata fields are most important to include?

- Alabama County Government Institute's 42<sup>nd</sup> Annual Meeting (June 14-15)
- Alabama Association of Assessing Officials 31<sup>st</sup>
   Annual Summer Conference (August 13-17)





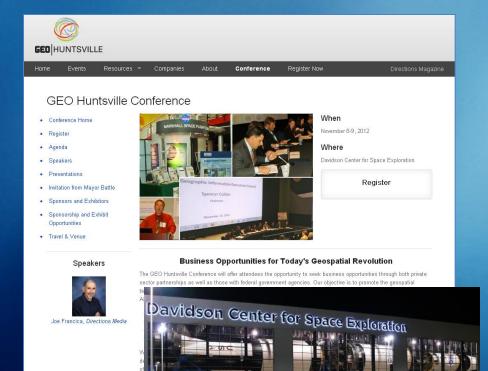
- 2012 Alabama Water Resources Conference (September 5-7)
- University of North Alabama Geography Alumni Conference (September 27 & 28)





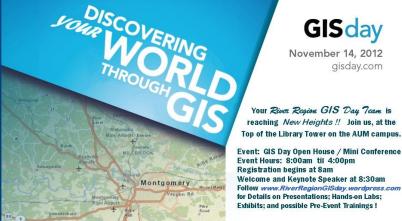
GeoHuntsville Conference (formerly The Rocket City GIS Conference) (November 8 & 9)

River Region GIS Day (November 13 & 14)









**GIS**day

November 14, 2012 gisday.com

Your River Region GIS Day Team is reaching New Heights!! Join us, at the Top of the Library Tower on the AUM campus.

Event Hours: 8:00am til 4:00pm Registration begins at 8am Welcome and Keynote Speaker at 8:30am Follow www.RiverRegionGlSdav.wordpress.com for Details on Presentations: Hands-on Labs: Exhibits: and possible Pre-Event Trainings!

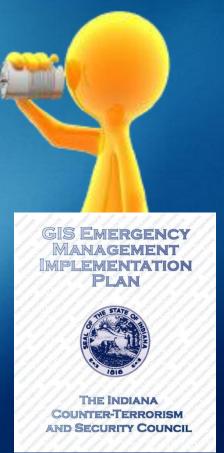
- Developing educational/informational brochures for outreach and display
- New opportunities for GIS education are currently under development



### Communications Subcommittee

Geospatial Preparedness Corps/GIS Response Team (GPC/GISRT)





### Communications Subcommittee

 Geospatial Preparedness Corps/GIS Response Team (GPC/GISRT)

Statewide network of response individuals and organizations

#### Vision:

- Identify critical capabilities and vulnerabilities
- Enhancing accessibility
- Delineate all hazards, response, and assessment considerations.
- Create a network for professional exchange and access to technical expertise
- Encourage interactions and collaborative initiatives
- Promote the standardization of methods
- Identify methods to engage new partnerships and new energy in the area of deployable GIS response resources

## **Executive Council Statewide GIS Goals**

- Inventory GIS data, applications, & services
- Leverage pooled resources
- Avoid unnecessary cost & duplication of effort
- Improve decision-support for statewide issues
- Establish statewide data standards to improve coordination

### **Executive Council Statewide GIS**

### **Coordinated Framework Data Layers**

- For 2012
  - Aerial Imagery
  - —Parcel Data
  - Road Centerlines
  - Geocoded Addresses

### GIS Program Office Update



### **Aerial Imagery**

- 20 counties of imagery updated in Virtual Alabama
  - 20 additional counties in process of ingestion
- NAIP CIR in the process of loading
- Esri world imagery 30 cm (better than NAIP)
- LiDAR for 20 counties

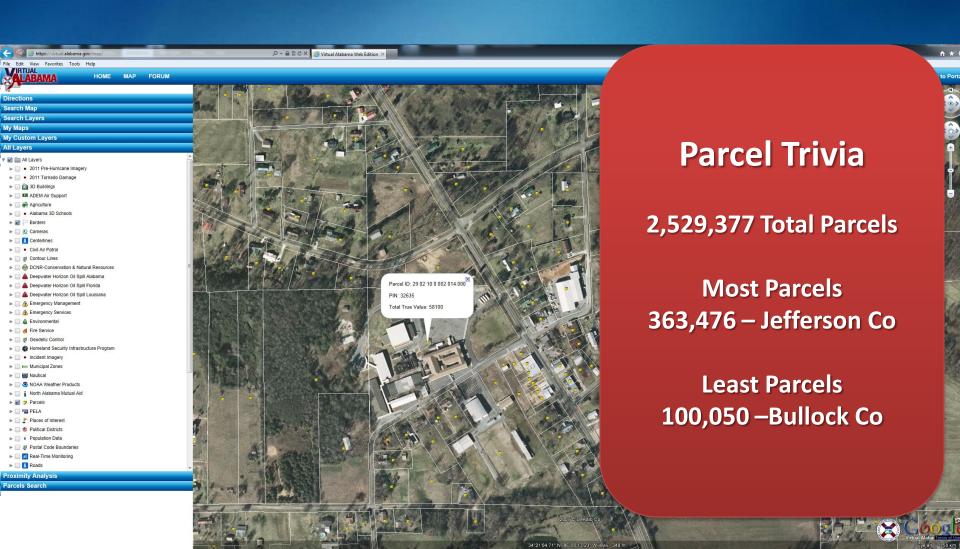


### **Parcel Data**

- Virtual Alabama currently has 47 counties available
  - Acquisition of other counties underway
- Web map services have been developed
- Mechanism for routine updates are being explored

### **Parcels**

### **47 Counties Contribute Parcel Data**



### **Road Centerlines**

- Virtual Alabama currently has NAVTEQ road centerlines
- ALDOT delivered statewide coverage of road centerlines
  - State routes (includes Interstates and US routes)
  - County routes







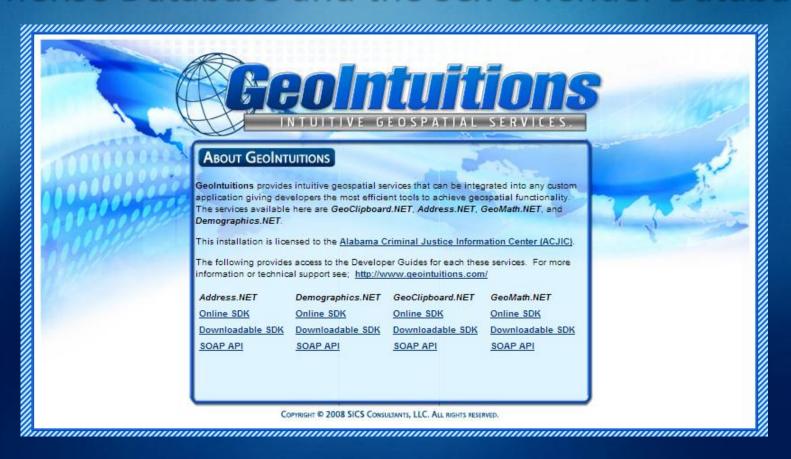
### **Geocoded Addresses**

- Virtual Alabama has a geocoder for addresses which is called GEOIntuitions
  - 1.6 million Alabama addresses identified
  - Address normalization
    - US Postal Service Database
  - Tiered geocoding architecture



### **Geocoded Addresses**

 In production with the ULTRA Incident and Offense Database and the Sex Offender Database

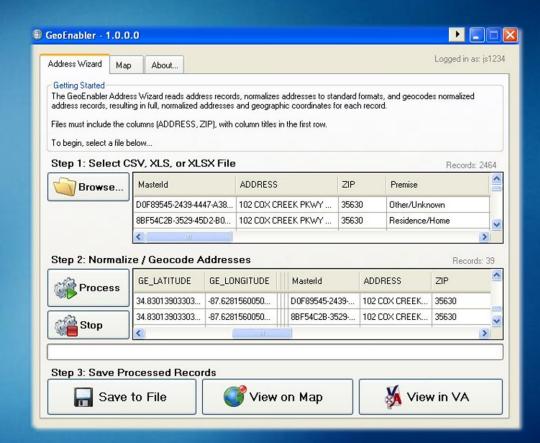


### **Geocoded Addresses**

### GeoEnabler

- Geocodes against parcels, NAVTEQ, TIGER, and GeoNames
- Normalizes addresses
- Verifies addresses against
   USPS database
- Supports up to 65,000 addresses
- Located at:

https://virtual.alabama.gov/Secure/GeoEnabler/





## GIS Program Offices has first Introduction to GIS course

- This is a prototype for educational intuitions in Alabama
- Designed to give a broad survey of GIS
- 24 participants
- More to come...



#### ALABAMA GEOGRAPHIC INFORMATION PROGRAM OFFICE



#### Introduction to GIS

#### Prerequisites

A basic understanding of computer hardware and Microsoft Windows operating systems.

#### Description

This one-day seminar is designed to give participants an overview of the State of Alabama GIS Executive Council and Program Office, to inform participants about Virtual Alabama and to introduce participants to Geographic Information Systems (GIS). Geographic Information Systems provide a variety of tools and technology to unearth and explain relationships, patterns, occurrences, and coincidence of spatially distributed features, objects, and information. Whether you know it or not, GIS impacts your daily life in many ways. The tools GIS offers enable business professionals to identify market areas, law enforcement officials to map and predict where crime is likely to occur, emergency management agencies to plan effective rescue and evacuation strategies in advance of disasters, and city, county, or state agencies to formulate and execute developmental plans in response to future growth trends as well as manage utilities, geo-spatial assets and parcel data. Topics covered in this seminar include GIS history and geospatial concepts, GIS computer operations, and map-making. Participants will gain hands-on experience with the world's leading GIS software, ESRI ArcGIS and Intergraph GeoMedia Professional. In addition, you will work with Global Positioning Systems (GPS) and gain an understanding of how GIS and GPS are combined to solve modern-day geospatial problems as well as provide insight into historical events. A portion of the seminar will touch on the latest 3D and 4D GIS technologies.

#### Seminar Topics

- . What is GIS and how is it used?
- . How is GIS governed in Alabama?
- . What is Virtual Alabama and how is it a common operating picture?
- Hands-On Session, ESRI ArcGIS 10.1.
- · Cartographic Concepts, Map Types, and Computer Cartography, ESRI ArcGIS 10.1.
- Data Types, Data Storage: Building Relational Databases, ESRI ArcGIS 10.1.
- Working with Images and Digitizing Features, ESRI Arc GIS 10.1.
- Overview and Hands-On with Intergraph GeoMedia Professional.
- · Remote Sensing, GPS and 3D GIS.

#### Seminar Leaders

- · Dr. Terry Winemiller
- Dr. Steve McKinney
- Phillip Henderson

# GIS Program Office to offer Esri GIS training courses

### Training Pass

Esri Training Pass is a convenient, one-stop method to manage GIS training that allows you to access training when you need it.

### **Training Delivery Considerations**

**Training Pass days may be redeemed for:** 

- 1. Instructor Led Courses (including client coaching)
  - 1. Online
  - 2. Traditional Public Classroom
  - 3. Client Site (at your location)
- 2. Virtual Campus
- 3. Esri Technical Certification





### Redemption Rates – Instructor Led

Option	Number of Days
Standard Course at Esri location (per student, per day)	1
Private class at Esri Location or Client Site Class* (per class, per day)	9
Additional student in a private or client site class (per student, per day)	0.5
Client coaching services at Esri location or client site (per class per day)	8

<sup>\*</sup>The redemption rate for private classes and client site classes is based on a class size of up to 12 students. The additional student training day rate applies to each extra student.

### Redemption Rates

#### **Virtual Campus Annual User Licenses**

Option	Number of Days
Retail Value: \$640	1
Retail Value: \$2,500	4
Retail Value: \$5,000	8
Retail Value: \$7,500	11
Retail Value: \$10,000	13
Retail Value: \$25,000	32

<sup>\*</sup>Most virtual campus courses cost \$32 per course, per student.

#### **Esri Technical Certification Vouchers**

Option	Number of Days
Esri Technical Certification Exam Voucher	0.45

### Training Needs Identified

- ArcGIS Online
- Flex or API Web Development
- Python Scripting
- System Configuration and Tuning
- Modeling
- Tools and Functionality of ArcGIS (Cartography/Editing)

#### **Departments included in assessment of needs:**

- EMA
- Geological Survey
- Oil and Gas Board
- ADECA
- ADEM
- ACJIC
- ALDOT

# Management Association for Private Photogrammetric Surveyors (MAPPS) forms the Alabama Chapter



# AL-WAPPS (Second Second Second

- Promote the significant cluster of geospatial firms and organizations in Alabama and its contributions to the state's employment base and economy
- Work with the State of Alabama and City of Huntsville to leverage that synergy for further economic growth
- Strengthen and broaden relationships with the educational community
- Provide a voice for the private sector and the community at large in governmental processes
- Pursue public/private partnerships as well as promote skilled workforce, market innovation & development and competitive market within Alabama
- Provide a forum for private firms in the state















**36,164**Total Users

3,196

**Government Agencies** 

>500

Average Weekly Users

### VA Completed Updates

- Expanded storage capacity by 30 Tb
- ArcGIS Map Services are now exposed
- GeoIntuitions Parcel Level Geocoding (1.6 million parcels)
- Parcel search in the desktop client
- Reorganization of data tree
- GeoEnabler v1.1.0.20
- Sex Offenders Search in the desktop client
- VA announcements now available in the desktop client
- vUSA widget developed
- Mobile App prototype



### VA Updates Underway

- Ingestion of 20 counties of imagery
- Ingestion of HSIP Freedom (274 layers)
- Ingestion of various statewide vector datasets (i.e. NHD, SSURGO, NGS...etc.)
- 2D map
  - Mobile support to iPads, iPhones, and Androids
- Bookmarks for the VA web portal and mobile apps
- VA Users will be able to upload and share resources (pictures, docs, links - all must be georeferenced)
- ArcGIS publish to VA inventory tool (toolbar)
- In myprojects
  - Creation of the ability to reply for comment on geospatial projects
  - Creation of the ability to upload custom AOI for project boundaries
- Sex Offenders photos display in popup



### **ArcGIS Map Services**

- Access granted based on request through VA user profile
- Secured with VA credentials
- 43 Counties of Parcel data
- 274 layer of HSIP Freedom data
- More to come...

#### **ArcGIS Services Directory**

Home > HSIP > HSIP Freedom Alabama (MapServer)

#### HSIP/HSIP\_Freedom\_Alabama (MapServer)

View In: ArcMap ArcGIS JavaScript

**Service Description:** 

Map Name: Layers

Legend

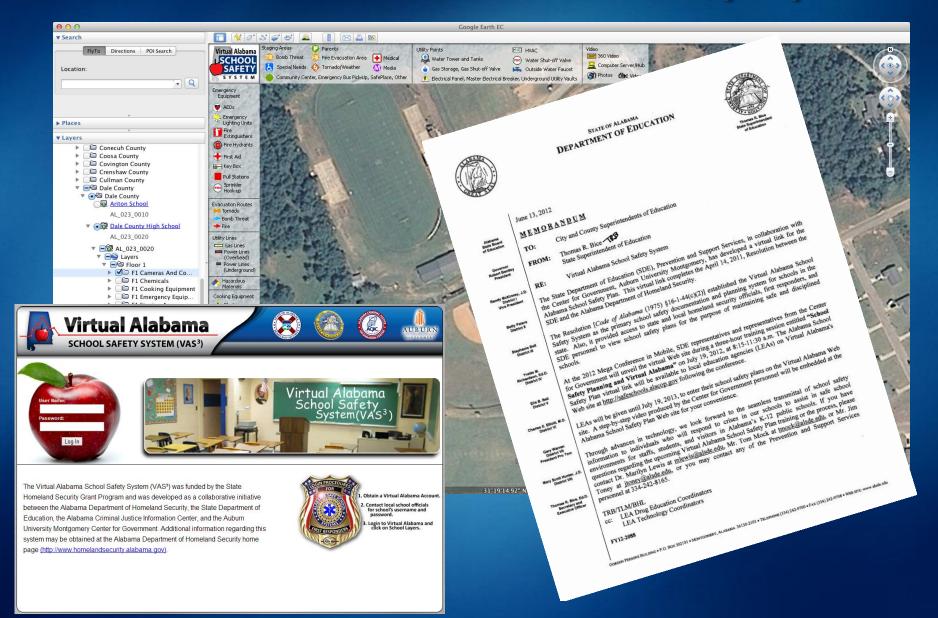
All Layers and Tables

#### Layers:

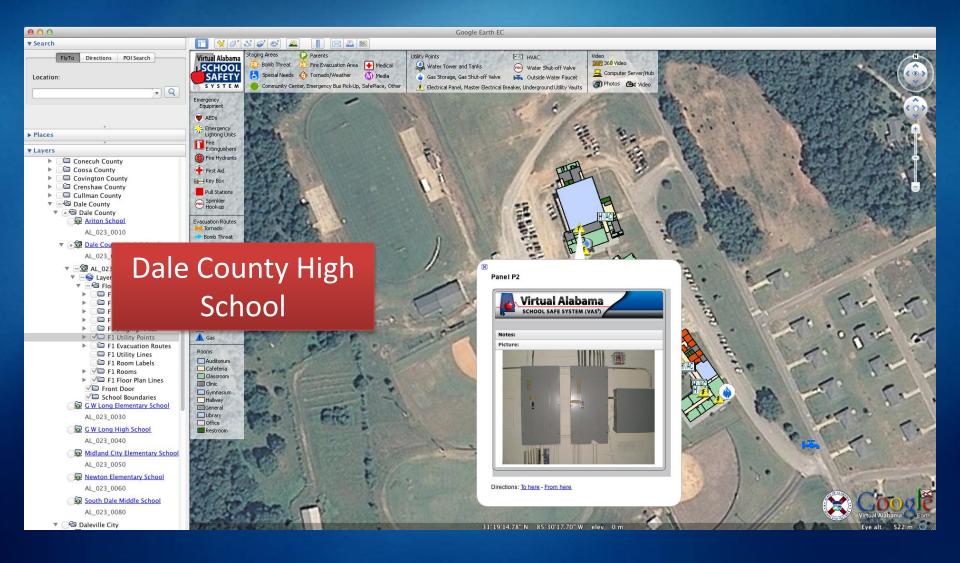
- Agriculture (0)
- Finance (3)
- Food Industry (9)
- Geonames (11)
- Chemicals (22)
- Commerical (25)
- Communications (27)
- Education (41)
- Emergency Services (47)
- Energy (56)
- Government (59)
- Law Enforcement (88)
- Mail and Shipping (97)
- Mining (106)
- Natural Hazards (116)
- Public Health (121)
- Public Venues (127)
- Transportation Air (133)
- Transportation Ground (136)
- Transportation Water (148)
- Water Supply (161)



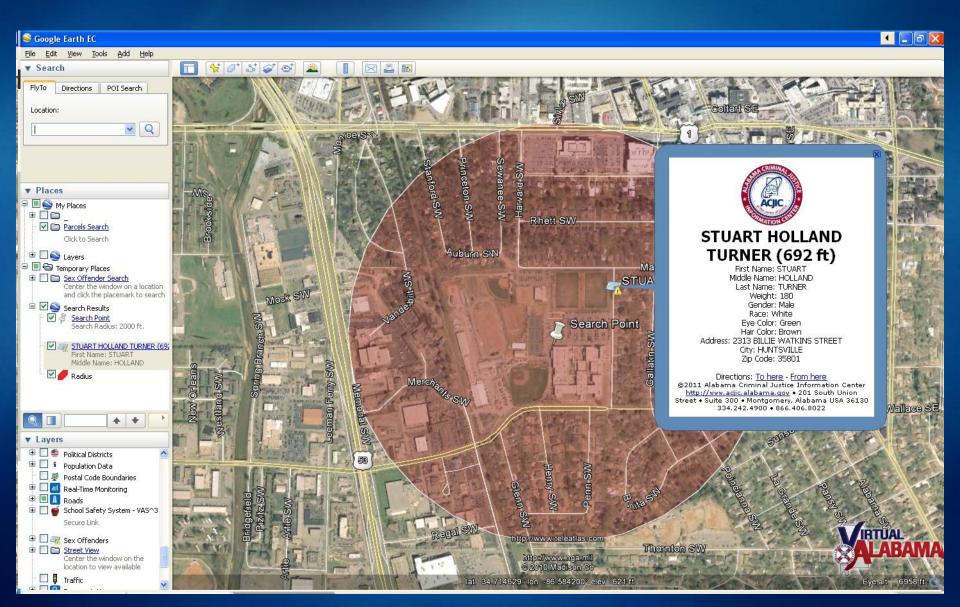
### Virtual Alabama School Safety System



### Approximately 1500 Schools Entered



### Virtual Alabama School Safety System



### Virtual USA Development Team





Science and Technology

Home

The Value of Viewers

The Need for Sharing

The Solution

Reference Materials

Contact Us





#### Virtual USA:

#### The right information, at the right time, for the right people

In an emergency, reliable information is a decision maker's most important asset. Virtual USA enables emergency response agencies to more quickly find, share, and analyze data — allowing them to make better decisions based on more complete information.

The Virtual USA Web site provides the data pipeline that allows partners to share critical information between geospatial viewers. The success of Virtual USA rests not only on technical capabilities, but on existing relationships among a community of emergency managers at all levels who agree to collaborate to improve situational awareness and emergency response.

#### Learn more about Virtual USA

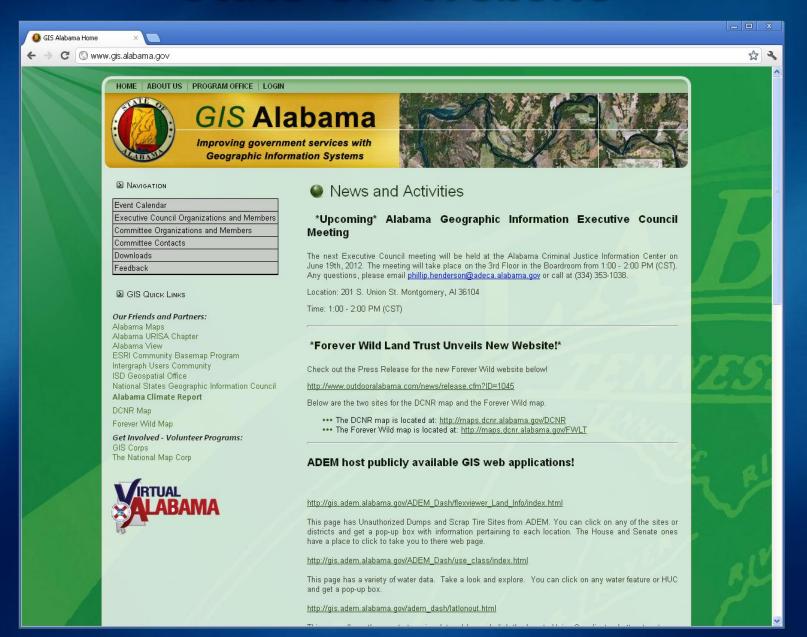
- How states' geospatial visualization systems are revolutionizing emergency preparedness and response
- What happens when a regional emergency requires a coordinated response
- · How Virtual USA helps responders exchange critical information guickly and securely within a trusted community



### Agenda

- Next Meeting
- Adjourn

### **State GIS Website**



### **GIS Awards & Conference**

- Establish the Governor's Excellence Award in GIS
  - Nominations collected by the Program Office
  - Approved by the GIS Executive Council
- Recognition of GIS success stories around the state
  - Communications Subcommittee
- Establish Statewide GIS conference
  - Summer/Fall 2013

